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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,112	01/24/2001	Jean-Michel Moutin	859063.490	5354

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EXAMINER
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WONG, ALLEN C

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/770,112

Applicant(s)

MOUTIN, JEAN-MICHEL

Examiner

Allen Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/17/05 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 8, 10 and 18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10, 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun (5,455,629) in view of Fukushima (6,477,204).

Regarding claims 10, 17 and 27, Sun discloses a method for decoding a plurality of MPEG sequences simultaneously using a single MPEG decoder, comprising:

receiving first and second image sequences of coded images (fig.8, note image sequence data is received at element 65);

receiving a stream of decoding commands, each decoding command corresponding to a respective one of the coded images (col.12, ln.33-52 and fig.8, element 360 receives decoding commands and element 370 functions together with 360 for processing decoding commands of the image data);

prioritizing the coded images (fig.8, note elements 60, 61 and 65 receive the priority data of the coded image data);

decoding the coded images using the single MPEG decoder, thereby producing decoded images of first and second images sequences (fig.8, element 64 is the variable length decoder that decodes the image data sequences);

saving the decoded images (fig.8, element 66, 314 and 316 store decoded image data).

Sun does not specifically disclose decoding images from more than one MPEG stream. However, Fukushima teaches the decoding images from more than one MPEG stream (fig.4, note elements 115-118 are MPEG decoders that can decode images from more than one MPEG stream; also see elements 12 and 22 of figs.7, 12, 13, and 15; see fig 10, elements 231 and 232). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Fukushima, as a whole, for efficiently decoding high quality images, saving financial costs by robustly reducing hardware requirements (Fukushima's col.3, ln.58-64).

Claims 1-9, 11-16 and 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun (5,455,629) and Oku (5,880,786) in view of Fukushima (6,477,204).

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Regarding claims 1, 8, 18-19, 22, 23 and 24-26, Sun discloses a device and method for prioritizing MPEG images to be decoded, comprising:

receiving first and second image sequences of coded images, each coded image having an image type that is one of a plurality of image types (fig.8, note image sequence data is received at element 65, and col.1, ln.26-28 disclose I, P and B images are plural image types of MPEG);

receiving a stream of decoding commands in a series of synchronizing periods, each decoding command corresponding to a respective one of the coded images (col.12, ln.33-52 and fig.8, element 360 receives decoding commands and element 370 functions together with 360 for processing decoding commands of the image data);

adding each decoding command to a priority list (fig.8, note elements 60, 61 and 65 receive the priority data of the coded image data);

prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding);

decoding the coded images in a priority order based on the priorities assigned to the coded images, thereby producing first and second images sequences of decoded images (fig.8, element 64 is the variable length decoder that decodes the image data sequences); and

displaying the first and second image sequences (fig.8, note image data is displayed at VIDEO OUT, where a video display RAM precedes the video output).

Although Sun does not specifically disclose the series of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).

Sun and Oku do not specifically disclose decoding images from more than one MPEG stream. However, Fukushima teaches the decoding images from more than one MPEG stream (fig.4, note elements 115-118 are MPEG decoders that can decode images from more than one MPEG stream; also see elements 12 and 22 of figs.7, 12, 13, and 15; see fig 10, elements 231 and 232). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Fukushima, as a whole, for efficiently decoding high quality images, saving financial costs by robustly reducing hardware requirements (Fukushima's col.3, ln.58-64).

Regarding claims 2 and 20, Sun discloses wherein the decoder control circuit further includes a pointer memory for storing the beginning addresses of each of the images to be displayed (fig.8, element 370 and 360 are used to aid the storage of images to be displayed).

Regarding claim 3, Sun discloses wherein said decoder control circuit further includes a safety circuit for adding a predetermined header before each image

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provided to the decoder so that two images put end to end cannot form a code that causes a malfunction of the decoder (fig.2, note headers are inserted to differentiate image as seen in L3 where a picture type and header can be used, further, there are more headers that can be utilized to prevent decoder malfunctions).

Regarding claim 4, Sun discloses wherein the device includes the MPEG decoder, and the MPEG decoder is connected to the decoder control circuit (col.12, ln.15-17).

Regarding claim 5, Sun discloses further comprising:

a memory that stores coded data and decoded data (fig.8, element 316); a first bus that connects the decoder control circuit to the memory (fig.8, note connection between elements 360 and 316); a display control circuit connected between a screen and the first bus (fig.8, element 370 connected to user input and the video display RAM); and a microprocessor connected by a second bus to the decoder control circuit and the display control circuit (fig.8, note connections are interconnected between elements 306, 308, 360 and 370).

Regarding claims 6, 7, 15, 16 and 21, the examiner takes Official Notice because interlace and non-interlace or progressive images are typically used and well known in MPEG.

Regarding claims 9 and 14, Sun discloses prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and

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then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding) and assigning a higher priority to the first image (fig.8, note HP is the higher priority and LP is the lower priority).

Sun does not specifically disclose the use of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).

Regarding claims 11-13, Sun discloses prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding).

Sun does not specifically disclose the series of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).




**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Wong  
Primary Examiner  
Art Unit 2613

AW  
12/1/05